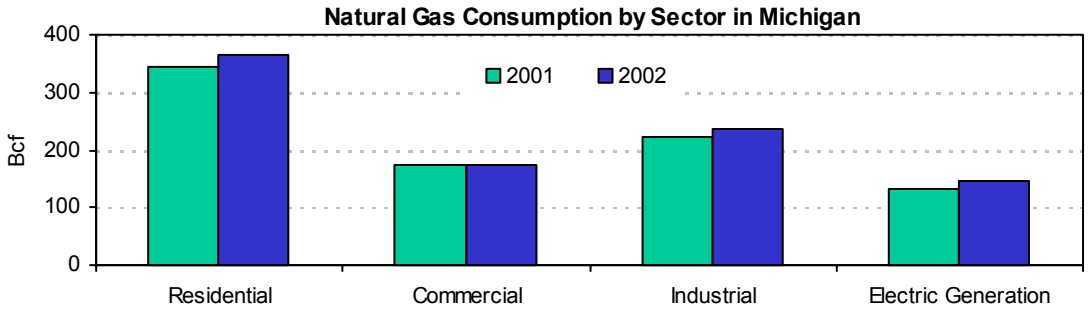
Natural Gas Price and Supply Update

July 11, 2003

Michigan Public Service Commission
Department of Consumer & Industry Services

Persistently high natural gas prices and historically low storage levels have combined to thrust natural gas into the spotlight. Projections for the remainder of the year indicate that wellhead prices will likely remain in the range of $5 to $6 per thousand cubic feet (/Mcf),[1] compared to the average price that prevailed throughout 2000 and 2001 of $3.87/Mcf.

At 921 billion cubic feet (Bcf) in 2002, Michigan is the sixth largest natural gas consuming state, accounting for 4.3% of U.S. consumption. Nearly 40% of the natural gas consumed in Michigan is used by the residential sector, primarily for home heating purposes. Over 78% of homes in Michigan are heated with natural gas. This trails only Utah and Illinois in terms of the percentage of households with natural gas as the primary heating fuel. Michigan also ranks among the top 10 states in total natural gas consumption by the commercial, industrial and electric generation sectors. In Michigan and throughout the Midwest a much higher percentage of natural gas is used as a winter heating fuel, compared to the nation as a whole. Other regions of the country use natural gas primarily as a year-round industrial and electric generation fuel.



Source: Energy Information Administration

Natural Gas Production and Storage in Michigan

Michigan is the twelfth largest natural gas producing state, accounting for little more than 1% of U.S. production. The amount of gas consumed in Michigan is roughly four times higher than the amount of gas produced in the state. Production in Michigan peaked at 280 Bcf in 1997 and has since declined to 215 Bcf in 2002. This trend toward lower production levels is expected to continue.

Michigan has the largest working gas storage capacity in the nation, equal to more than two-thirds of the state's total usage. Working gas storage capacity in Michigan comprises more than 15% of the total U.S. capacity. The state's storage capacity has helped insulate Michigan customers from some of the volatility

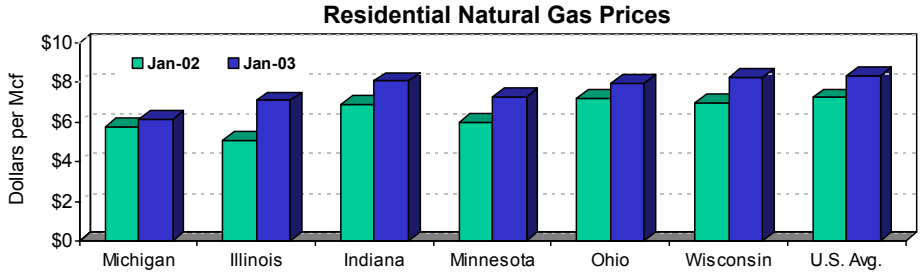
[1] Source: U.S. Department of Energy, Energy Information Administration. More information is available at: http://www.eia.doe.gov/emeu/steo/pub/contents.html
Spot prices are commonly quoted in $/mmbtu, while end use customers are typically billed in $/Mcf. All prices in this report are quoted in $/Mcf and, where necessary, prices were converted from mmbtu to Mcf using the average heat content in a cubic foot of dry gas of 1,029 btu per cubic foot over the 22 year period covering 1980-2001.

in natural gas prices. Gas has been purchased at low prices in the summer to put into storage. When demand-related price spikes occur during the winter months, the low cost gas is pulled from storage and delivered to customers. However, through the first two months of the storage injection season, spot prices at the Henry Hub trading location in Louisiana averaged $5.53/Mcf. This is more than 66% higher than the average price during the 2002 storage injection season. Natural gas utilities and storage firms can protect their customers from the wide price fluctuations experienced in spot markets by purchasing considerable volumes of gas using long-term contracts or employing other hedging techniques. When prices remain elevated for longer periods of time, contracts will adjust and the higher prices will eventually reach end use customers.

Colder-than-normal weather this past winter caused storage levels in Michigan to drop well below average levels. At the end of February 2003, the last month for which state level data is available, working gas storage levels were 60% lower than the five-year average level for that time of year. Through the first three months of the storage injection season (which runs from April through October), indications are that utilities with storage capacity in Michigan and storage firms that serve Michigan's utilities are on pace to store sufficient quantities of gas to meet customer's heating demands for the coming heating season. However, large industrial customers with storage capacity in Michigan appear to have fallen behind in their storage injections.

Residential Prices

In January 2003, the average cost of delivered gas to residential customers in Michigan was $6.13/Mcf, which was well below the U.S. average of $8.30/Mcf. Compared to January 2002, the price in Michigan has risen 6% (from $5.78/Mcf in January 2002), while the U.S. average price has risen nearly 15% (from $7.23/Mcf in January 2002).



Source: Energy Information Administration

While changes in residential prices typically respond slowly to increases in spot prices, most utilities in Michigan have already begun passing high natural gas prices on to their customers. However, if spot prices climb to higher levels, additional residential price increases become increasingly likely.

The Michigan Public Service Commission (MPSC) is required to annually review each utilities gas purchases in what is known as a Gas Cost Recovery (GCR) plan. Each utility must show that the costs they paid for natural gas are reasonable and prudent. If the utility has acted to minimize the cost of gas they purchase, prices are set in the GCR process that enable the utility to recover the costs they paid for their gas supply (without a markup or profit of any kind). The MPSC has recently reviewed the GCR plans for the four largest natural gas utilities in Michigan. The prices that the utilities charge customers largely reflect expected market prices over the next 12 months, as well as the difference between what each has charged customers versus what the utility paid for gas over the past 12 months. A comparison of prices charged by the four largest natural gas utilities in Michigan in July 2002 and the amount they are permitted to charge in July 2003 is shown in the table below.

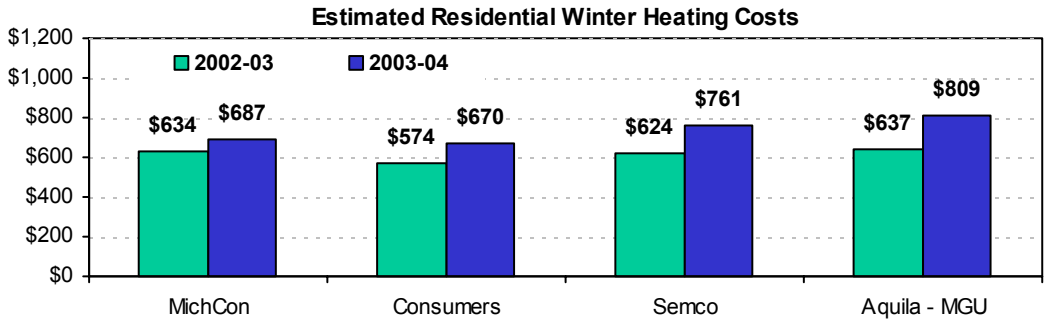
Price Comparison
(in $/Mcf)

Company	Number of Residential Customers	July-02	July-03	Percent Increase
Consumers Energy	1,518,541	$3.66	$4.85	32.5%
Mich Con Gas	1,046,440	$4.38	$4.97	13.5%
SEMCO Energy	206,758	$3.83	$6.03	57.4%
Aquila Networks - MGU	143,034	$4.17	$6.08	45.8%

Note: Prices in this table do not include distribution or customer charges, which are discussed in more detail below.

Natural gas bills of customers in Michigan reflect more than simply the cost of gas. Customers are also billed for the distribution of the gas (in an amount that varies by the quantity consumed) and an amount necessary to cover the distribution and other administrative costs of the local natural gas utility. Currently, distribution charges in Michigan range from a low of $0.86/Mcf (charged by Wisconsin Public Service Corporation) to a high of $3.28/Mcf (charged by Aurora Gas) and customer charges range from a low of $5 per month (charged by Wisconsin Public Service Corporation) to high of $9.50 (charged by SEMCO Energy). The amount charged for gas typically accounts for approximately 70% of a customer's total bill in the winter months. While gas prices charged to some Michigan customers may increase by more than 50%, the actual bills of these customers will increase by less.

The chart below illustrates the likely impact of higher natural gas prices on the residential customers of Michigan's four largest natural gas firms. These estimates are for the period covering November through April and are based on an expected consumption of 100 Mcf per household over that six-month period. Winter weather that is either warmer or colder than normal will also have an impact on heating bills. While not reflected in the figures below, the 2002-03 winter was 2% colder than normal (measured in the number of heating degree days). This likely inflated heating bills by nearly 2%.



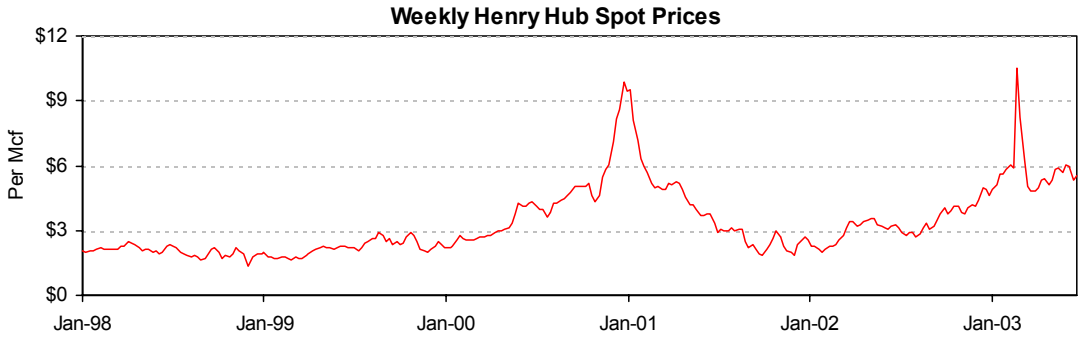
Source: Michigan Public Service Commission

According to the Energy Information Administration, wellhead prices for natural gas are expected to remain at the elevated levels experienced in recent months. Prices have averaged $5.76/Mcf through the first five months of 2003 and are expected to average $4.82/Mcf from June 2003 to April 2004. Prices in energy futures markets also support the view that natural gas prices will remain at these relatively high levels through the end of the 2003-04 heating season.

National Production, Consumption and Price Trends

Understanding the causes, risks and impacts of tight supplies and higher prices in Michigan requires an understanding of national trends. Natural gas supply, demand and pricing are a function of market conditions in North America; with recent increases in imported liquefied natural gas, this is now shifting somewhat.

Last winter's colder-than-normal weather caused natural gas prices at the Henry Hub trading location to spike at well over $10/Mcf in late February 2003. While a small amount of natural gas is actually exchanged at the Henry Hub, the price serves as an important market benchmark, which may be used to establish the price level for natural gas purchase and delivery contracts. The recent spike in prices was the second such occurrence in the last several years (the first price spike occurred in December 2000 and was also driven by extreme weather). However, unlike the first price spike where prices quickly retreated, all indications are that prices will remain elevated for some time.



Source: Gas Daily

Domestic production of natural gas has increased by an annual average rate of less than 1% per year during the past 15 years. Advances in technology have increased production rates and accelerated the depletion of existing wells. Through exploration activities, producers have continued to find a sufficient amount of gas to nearly match or exceed annual production levels. However, many of these new natural gas discoveries feature smaller quantities of gas and require larger investments in drilling and exploration. In addition, the industry continues to face the lingering effects of the Enron scandal, with many industry participants facing higher credit costs and becoming more risk averse.

Over the last 15 years, natural gas demand has increased by nearly 2% per year, or nearly twice the rate of growth in domestic natural gas production. This growth in demand has occurred despite increases in efficiencies among end-uses. Nearly all of the natural gas demand growth in recent years is attributable to the proliferation in use of natural gas-fired power plants. Demand for natural gas by electric generators now exceeds the demand by residential customers. The gap between domestic production and consumption is largely filled by natural gas imported from Canada. There is considerable uncertainty in both the long-term and short-term prospects for increasingly higher levels of imports from Canada. Increasing the amount of liquefied natural gas remains an option, although substantial investments in storage and transportation infrastructure would be required.

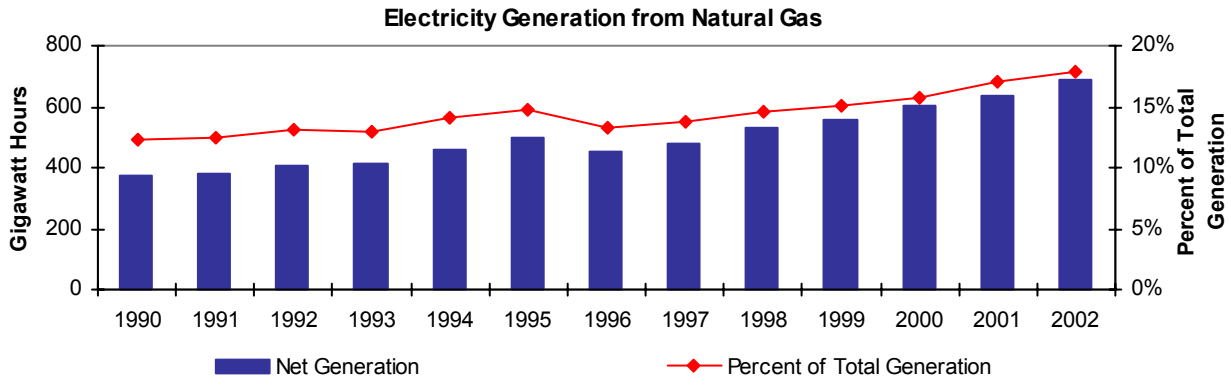
Price adjustments that might typically be associated with the changing trends in production (depletion of low cost supplies) and consumption (sharp increases for electricity generation) have been muted in varying degrees over the past several years by warmer-than-normal winters and a sluggish economy.

Nationally, natural gas storage levels, which reached historically low levels this past winter, remain more than 15% below the five-year average. In 11 of the past 12 weeks injections into storage have exceeded average levels, so the gap is closing. As of July 4, 2003, storage levels were 1,773 Bcf. Industry analysts

suggest that, at a minimum, storage levels need to reach 2,800 Bcf by the end of October in order to meet typical winter heating demands. In order to reach 2,800 Bcf by the end of October, 6% more natural gas needs to be injected relative to the five-year average level of injections. A positive indication has been that to date, actual injections have exceeded the five-year average by more than 20%.

Short-Term Risks

Several factors could play a role in determining the path of natural gas prices and storage injections throughout the summer, the most significant of which is the weather. Over the past several years there has been a substantial increase in the number of power plants that are fired by natural gas. In 2002, over 54,000 megawatts of new gas-fired generation came on line, representing over 98% of the new capacity. Many of these plants are peaking units that operate only in the summer months to meet summer air conditioning loads. There are now over 1,000 electric generating plants nationwide that use natural gas as a fuel source, and consumption by the sector has grown by 36% in the past six years from 4,065 Bcf in 1997 to 5,553 Bcf in 2002. The volume of natural gas used as a fuel for electric generation now exceeds the amount consumed by the residential sector. Warmer-than-normal temperatures would increase demand to generate electricity and jeopardize the ability of storage operators to put gas into storage.



Source: Energy Information Administration

Another factor that can affect supply this summer is hurricanes. Approximately 60% of the natural gas produced in the U.S. comes from the Gulf of Mexico region (which includes both on-shore and off-shore production). Hurricane activity in the region can force producers to shut down off shore drilling and production rigs, which places constraints on the amount of natural gas available for storage injections. High natural gas prices tend to increase the economic incentive to produce natural gas. Indeed, the number of rigs producing or exploring for gas in May 2003 was 25% higher than one year ago.[2] In addition, high prices tend to encourage fuel switching or to reduce the level of economic activity in sectors of the economy that are natural gas intensive. This frees up additional gas to put into storage.

There remains considerable risk for more short-term price volatility. If production falls below projected levels and the summer is particularly hot, high prices will not only inflate customers' bills but may also constrain economic activity. The economic forecasting firm Global Insight estimates that significant price spikes in the months ahead could reduce third quarter economic growth by one percentage point, from 3.8% to 2.8%. However, if the industry succeeds in putting enough gas in storage to meet projected winter demand, and they have done well to this point, it will greatly reduce the risk and severity of price volatility over the winter months.

[2] Source: Baker Hughes. More information is available at http://www.bakerhughes.com/investor/rig/rig_na.htm